

Project Name	InfotAiMOS
Online team meeting	https://fau.zoom.us/j/67792730528
Production system (if any)	tba
Test system (if any)	tba
GitHub repository	https://github.com/amosproj/amos2022ws02-automotive-test-app/
GitHub feature board	https://github.com/orgs/amosproj/projects/5
GitHub impediments backlog	https://github.com/orgs/amosproj/projects/6
Team T-shirt (black, male)	https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/eca1c484-76e3-403a-8df9-b080a79b659f
Team T-shirt (black, female)	https://www.shirtinator.de/t-shirts/gestalten/t-shirt-bedrucken#/load/share/fb698f2d-07cd-4e63-9301-62e7e0d35a1b
Additional materials	

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#	Meeting Day	Product Owner	Software Developer	Release Manager	Scrum Master	Comment
1	2022-10-19	Corinna Wüllner, Stefanie	Everyone else	N/A	Ronja Rehm	
2	2022-10-26	Corinna Wüllner, Stefanie	Everyone else	Anders	Ronja Rehm	
3	2022-11-02	Corinna Wüllner, Stefanie	Everyone else	Berkan	Ronja Rehm	
4	2022-11-09	Corinna Wüllner, Stefanie	Everyone else	Daniel	Ronja Rehm	
5	2022-11-16	Corinna Wüllner, Stefanie	Everyone else	Emre	Ronja Rehm	
6	2022-11-23	Corinna Wüllner, Stefanie	Everyone else	Hanna	Ronja Rehm	
7	2022-11-30	Corinna Wüllner, Stefanie	Everyone else	Lara	Ronja Rehm	Mid-term due
8	2022-12-07	Corinna Wüllner, Stefanie	Everyone else	Tobias	Ronja Rehm	
9	2022-12-14	Corinna Wüllner, Stefanie	Everyone else	Anders	Ronja Rehm	
10	2023-01-11	Corinna Wüllner, Stefanie	Everyone else	Berkan	Ronja Rehm	
11	2023-01-18	Corinna Wüllner, Stefanie	Everyone else	Daniel	Ronja Rehm	
12	2023-01-25	Corinna Wüllner, Stefanie	Everyone else	Emre	Ronja Rehm	
13	2023-02-01	Corinna Wüllner, Stefanie	Everyone else	Hanna	Ronja Rehm	
14	2023-02-08	Corinna Wüllner, Stefanie	Everyone else	Lara	Ronja Rehm	Demo day!
15	2023-02-15	Corinna Wüllner, Stefanie	Everyone else	Tobias	Ronja Rehm	Retrospective

Goals	Have a working and visually pleasing app; good team work; good grades; continuous work throughout the semester
Meeting norms	Be punctual; active contribution; respectful environment
Working norms	Do the work you're assigned to do, in the agreed time frame; in case of questions/struggles ask for help; set realistic goals; work
Coordination norms	If you cannot attend a meeting, please inform the team asap and give information on work in text-form
Communication norms	Open/honest/constructive communication; decisions should be made in consensus; if questions arise, take time to answer themm
Consideration norms	In case of issues: have open communication about it, resolve issues in a respectful way; for assistance contact Scrum Master
Cont. improvement norms	Learn from mistakes; give positive/negative feedback to team mates; exchange knowledge
Rewards	Give compliments for a job well done; have a virtual beer together
Sanctions	If at least 5mins too late to a meeting: sing a christmas carol

Product Vision	Project Mission
<p>The importance of infotainment systems in cars is increasing and users expect more and more connectivity in the car (Handelsblatt, 2005). At the same time, different car manufacturers use different infotainment systems, each customized to the specific needs of the respective manufacturers. With InfotAiMOS, our goal is to create an OpenSource Android Automotive test app, which can be used by various software developers of infotainment systems to help them with the development of other apps and thus, make their work easier.</p>	<p>The mission of this project is to develop a functioning Android Automotive test app, that can help to test and simulate different use cases of infotainment systems immediately or with a time delay. It particularly focuses on the simulation of these use cases in the context of navigation, steering wheel knobs, media play, power management and vehicle properties. This app should therefore, provide the developers with a test system in which apps can be tested in a safe environment.</p>

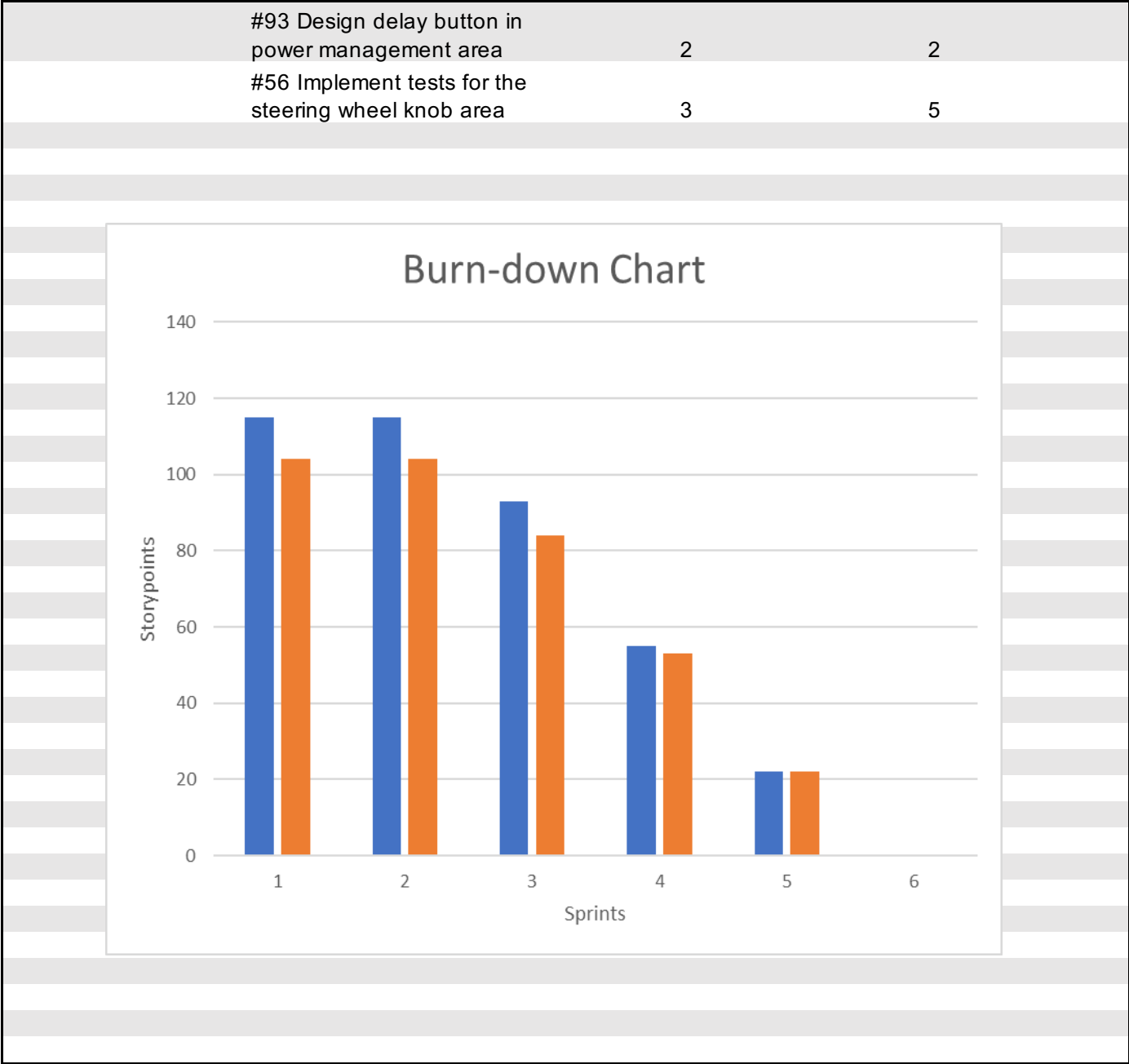
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Sprint	Theme	Goal	Feature Name	Est. Size	Est.	Real Size	Real Remaining
Release							
Total				115	0	104	0
Sprints							
				Estimated burn-down		Real burn-down	
1	Initial organizational tasks			0	115	0	104
2	Familiarization with project			0	115	0	104
3	Implementation of Navigation Context Area			22	93	20	84
4	Development of Navigation & Steering Wheel			38	55	31	53
5	Development of additional Areas			33	22	31	22
6	Implementation of Vehicle Properties Use Cases			22	0	22	0
Features							
1	Initial organizational tasks						
	Set up development environment and team structures						
	#30 Set up development						
	#31 Set up SD kickoff-meeting						
2	Familiarization with project						
	Familiarize with programming environmer						
	#9 Familiarize with Android Automotive						
	#10 Familiarize with test driven development						
	#11 Familiarize with Android development						
	#12 Familiarize with Kotlin						
	#27 Fill Bill of Materials						
	#28 Come up with Software Architecture						
	#29 Create an App						
3	Implementation of Navigation Context Area						

Create area for navigation use cases		
#15 Design GUI for starting page	3	3
#18 Implement GUI for use cases in navigation context area	3	3
#5 Design GUI for use cases in navigation context area	3	3
#16 Implement functionality to enter navigation use case area	3	2
#8 Simulate starting a navigation	5	5
#14 Simulate ending a navigation	3	2
#17 Implement back button to previous page	2	2
4 Development of Navigation and Steering Wheel Area		
Further development of navigation area and implementation of steering wheel area		
#61 Add an icon for the application	2	2
#42 Design GUI for media play area	2	3
#41 Implement functionality of clicking on activeNavigation Button	3	2
#39 Design GUI for showing name and descriptions of steering wheel buttons	3	2
#38 Implement click dummy to implement button functionality	2	2
#37 Design GUI for steering wheel	5	5

	#35 Implement functionality of pressing a steering wheel button: voicecontrol	5	2
	#34 Implement functionality of pressing a steering wheel button: play/pause	5	2
	#33 Implement functionality of pressing a steering wheel button: skipForward	3	2
	#20 Implement functionality to enter steering wheel use case area	2	2
	#19 Design GUI for steering wheel area on starting page	3	2
	#13 Show that navigation is currently active	3	5
5	Development of additional areas		
	Further development of steering wheel, vehicle properties and power management area		
	#55 Implement tests for the starting page	3	2
	#57 Implement tests for the navigation area	3	3
	#21 Implement GUI for steering wheel in Android Studio	5	5
	#40 Implement functionality to show name and description when clicking on a button	3	3
	#66 Implement toggle button to switch between functionality and description wheel	3	3

	#25 Design GUI for vehicle properties area on starting page	5	5
	#7 Implement GUI for use cases in the vehicle properties context area	2	2
	#26 Implement functionality to enter vehicle properties use case area	2	2
	#22 Design GUI for power management area on starting page	2	2
	#24 Implement GUI for use cases in the power management context area	3	2
	#23 Implement functionality to enter power management use case area	2	2
6	Implementation of Vehicle Properties Use Cases & Refactoring		
	Develop an Area to test Vehicle Properties		
	#58 Create the Build Process Video	5	5
	#72 Implement functionality of pressing a steering wheel button: SeekForward	3	2
	#51 Implement functionality to switch between day and night mode	5	5
	#43 Implement functionality to enter media play use case area	2	2
	#92 Design mute button in power management area	2	1



Sprint	Theme	Goal	Feature Name	Est. Size	Est.	Real Size	Real Remaining
Release							
Total				165	0	149	0
Sprints							
				Estimated burn-down		Real burn-down	
1	Initial organizational tasks			0	165	0	149
2	Familiarization with project			0	165	0	149
3	Implementation of Navigation Context Area			22	143	20	129
4	Development of Navigation & Steering Wheel			38	105	31	53
5	Development of additional Areas			33	72	31	22
6	Implementation of Vehicle Properties Use Cases			22	50	22	0
7	Implementation of Timer Context Area &			31	19	31	0
8	Implementation of Speech Assistant and			19	0	14	0
9	Implementation of TestDrive area and further dev			33	tbd.	tbd.	tbd.
10	Christmas Break			n/a	tbd.	n/a	n/a
11	tbd.			tbd.	tbd.	tbd.	tbd.
12	Finalization of App			tbd.	tbd.	tbd.	tbd.
13	Last Adjustments for the Final Project Release			tbd.	tbd.	tbd.	tbd.
14	Creation of Final Project Presentation			tbd.	tbd.	tbd.	tbd.
				tbd.	tbd.	tbd.	tbd.
Features							
1	Initial organizational tasks						
	Set up development environment and team structures						
	#30 Set up development branch in Github						
	#31 Set up SD kickoff-meeting						
2	Familiarization with project						
	Familiarize with programming environment						
	#9 Familiarize with Android Automotive						

	#10 Familiarize with test driven development		
	#11 Familiarize with Android development		
	#12 Familiarize with Kotlin		
	#27 Fill Bill of Materials		
	#28 Come up with Software Architecture		
	#29 Create an App		
3	Implementation of Navigation Context Area		
	Create area for navigation use cases		
	#15 Design GUI for starting page	3	3
	#18 Implement GUI for use cases in navigation context area	3	3
	#5 Design GUI for use cases in navigation context area	3	3
	#16 Implement functionality to enter navigation use case area	3	2
	#8 Simulate starting a navigation	5	5
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	#17 Implement back button to previous page	2	2
4	Development of Navigation and Steering Wheel Area		
	Further development of navigation area and implementation of steering wheel area		
	#61 Add an icon for the application	2	2
	#42 Design GUI for media play area	2	3

	#41 Implement functionality of clicking on activeNavigation Button	3	2
	#39 Design GUI for showing name and descriptions of steering wheel buttons	3	2
	#38 Implement click dummy to implement button functionality	2	2
	#37 Design GUI for steering wheel	5	5
	#35 Implement functionality of pressing a steering wheel button: voicecontrol	5	2
	#34 Implement functionality of pressing a steering wheel button: play/pause	5	2
	#33 Implement functionality of pressing a steering wheel button: skipForward	3	2
	#20 Implement functionality to enter steering wheel use case area	2	2
	#19 Design GUI for steering wheel area on starting page	3	2
	#13 Show that navigation is currently active	3	5
5	Development of additional areas		
	Further development of steering wheel, vehicle properties and power management area		
	#55 Implement tests for the starting page	3	2
	#57 Implement tests for the navigation area	3	3

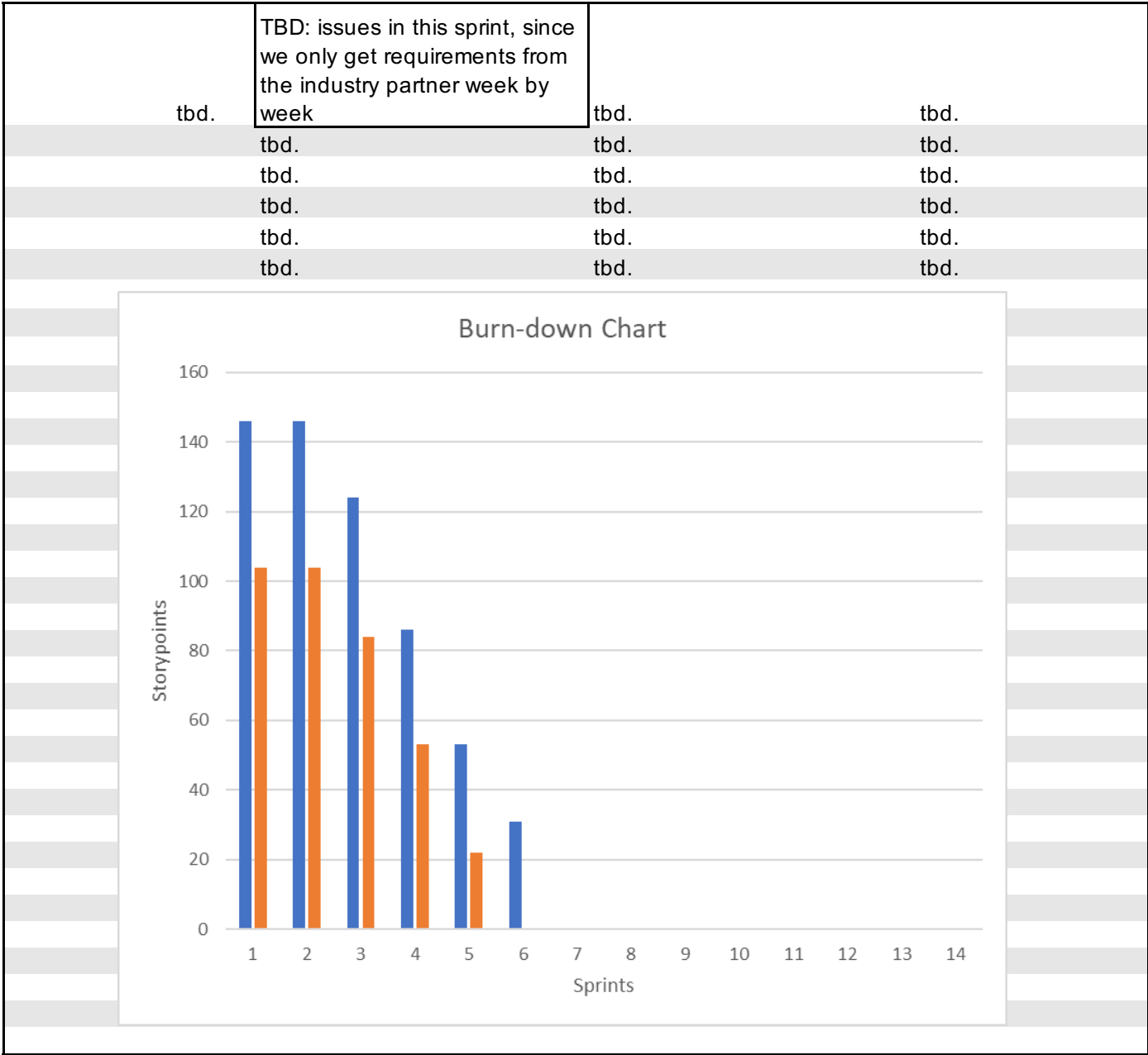
	#21 Implement GUI for steering wheel in Android Studio	5	5
	#40 Implement functionality to show name and description when clicking on a button	3	3
	#66 Implement toggle button to switch between functionality and description wheel	3	3
	#25 Design GUI for vehicle properties area on starting page	5	5
	#7 Implement GUI for use cases in the vehicle properties context area	2	2
	#26 Implement functionality to enter vehicle properties use case area	2	2
	#22 Design GUI for power management area on starting page	2	2
	#24 Implement GUI for use cases in the power management context area	3	2
	#23 Implement functionality to enter power management use case area	2	2
6	Implementation of Vehicle Properties Use Cases & Refactoring		
	Develop an Area to test Vehicle Properties		
	#58 Create the Build Process Video	5	5

	#72 Implement functionality of pressing a steering wheel button: SeekForward	3	2
	#51 Implement functionality to switch between day and night mode	5	5
	#43 Implement functionality to enter media play use case area	2	2
	#92 Design mute button in power management area	2	1
	#93 Design delay button in power management area	2	2
	#56 Implement tests for the steering wheel knob area	3	5
7	Implementation of Timer Context & Speech Assistant Area		
	Develop an Area for the timer context and the Speech Assistant		
	#100 Simulate speech announcement in navigation context area	5	tbd.
	#113 Design GUI for App Settings area on starting page	2	tbd.
	#114 Implement functionality to enter App Settings context are	1	tbd.
	#123 Implement GUI for use cases in App Settings Context area	2	tbd.
	#115 Move functionality for switch between day/night mode to App Settings context	2	tbd.
	#101 Design GUI for timer area on starting page	2	tbd.

	#102 Implement functionality to enter timer use case area	1	tbd.
	#117 Implement GUI for list in timer area	5	tbd.
	#105 Design GUI for speech assistant area on starting page	2	tbd.
	#106 Implement functionality to enter speech assistant use case area	1	tbd.
	#124 Implement GUI for use cases in Speech Assistant context area	1	tbd.
	#104 Implement functionality for timer in timer context area	5	tbd.
	#103 Design Delay button in speech assistant area	2	tbd.
8	Implementation of Speech Assistant and Vehicle Properties Use Cases		
	Develop use cases in speech assistant and vehicle properties area		
	#110 Design and implement tile to show vehicle identifier number in vehicle properties area	3	5
	#141 Design GUI for batterie lov	3	2
	#136 Research if functionality of changing the vehicle identifier number	3	1
	#137 Buttons are displaced fron	5	3
	#139 Get a notification when battery level drops below a self selected level	5	3
9	Implementation of TestDrive area and further development of Speech Assistant		
	Design & implementation of test drive area and further use cases in Speech Assistant Area		

	#107 Implement functionality of PTT speech assistant	8	tbd.
	#108 Implement functionality of TTT speech assistant	1	tbd.
	#112 Design and implement tile to show battery level in vehicle properties area	5	tbd.
	#116 Refactor GUI of starting page	5	tbd.
	#147 Design GUI for test drive area on starting page and Implement functionality to enter it	2	tbd.
	#150 Design and Implement a tile for starting/stopping a recording of a test drive in the test drive area	3	tbd.
	#157 Refactor buttons in navigation use case area	3	tbd.
	#161 Design and implement list of test drive recordings in test drive area	3	tbd.
	#166 Design and implement GUI for list in media play area	3	tbd.
10	Christmas Break		
	n/a		
11	tbd.		

tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by week	tbd.	tbd.
tbd.	tbd.	tbd.	tbd.
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tbd.	tbd.	tbd.	tbd.
12 Finalization of App			
tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by week	tbd.	tbd.
tbd.	tbd.	tbd.	tbd.
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tbd.	tbd.	tbd.	tbd.
13 Last Adjustments for the Final Project Release			
tbd.	TBD: issues in this sprint, since we only get requirements from the industry partner week by week	tbd.	tbd.
tbd.	tbd.	tbd.	tbd.
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tbd.	tbd.	tbd.	tbd.
14 Creation of Final Project Presentation			



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#	Context	Name	Version	License	Comment
1	junit	junit	4.13.2	Eclipse Public	https://github.com/junit-team/junit4
2	androidx.core	core-ktx	1.9.0	Apache 2.0	https://github.com/androidx/androidx
3	androidx.appcompat	appcompat	1.5.1	Apache 2.0	
4	androidx.test.ext	junit	1.1.3	Apache 2.0	
5	androidx.test.espresso	espresso-core	3.4.0	Apache 2.0	
6	androidx.activity	activity-ktx	1.6.1	Apache 2.0	
7	androidx.constraintlayout	constraintlayout	2.1.4	Apache 2.0	
8	androidx.media	media	1.6.0	Apache 2.0	
9	androidx.fragment	fragment-ktx	1.5.4	Apache 2.0	
10	com.google.android.material	material	1.7.0	Apache 2.0	https://github.com/material-components/material-components-android
11	JLLeitschuh	ktlint-gradle	11.0.0	MIT license	https://github.com/JLLeitschuh/ktlint-gradle
12	androidx.lifecycle	lifecycle-*	2.5.1	Apache 2.0	https://github.com/androidx/androidx
13	androidx.navigation	navigation	2.5.3	Apache 2.0	
14	org.hamcrest.Matchers	hamcrest matcher	1,3	BSD-3-Clause	https://github.com/hamcrest/JavaHamcrest
15	io.mockk	mockk	1.13.2	Apache 2.0	https://github.com/mockk/mockk
16	androidx.car.app	Car App	1.3.0	Apache 2.0	

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